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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 33373-2025

Replacing GB/T 33373-2016

Corrosion control - Electrochemical protection - Terminology

腐蚀控制 电化学保护 术语

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Table of Contents

1.Scope	1
2 Normative References	1
3.Corrosion Basics	1
4.Fundamentals of Electrochemistry	3
6 Anode protection	12
7.Stray Current Interference and Elimination	13
8.Detection and Monitoring	18
20 Index	21

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting. This document replaces GB/T 33373-2016 "Terminology for Electrochemical Protection Against Corrosion". Compared with GB/T 33373-2016, except for the following. Aside from structural adjustments and editorial changes, the main technical changes are as follows:

- a) The scope of application has been changed (see Chapter 1, Chapter 1 of the.2016 edition);
- b) Some terms and definitions, such as "corrosive media," have been deleted (see sections 2.2-2.3, 2.9, 3.18-3.19, and 4.1.1-2.3 of the.2016 edition). 4.1.3, 4.1.15~4.1.23, 4.1.26, 4.1.36, 5.7, 6.1~6.4, 7.5, 7.10~7.15, 7.19);
- c) Added some terms and definitions such as "corrosion source" (see 3.2~3.4, 3.7~3.11, 3.13~3.15, 3.18, 4.18, 5.1.1~). 5.1.2, 5.1.5~5.1.6, 5.1.12~5.1.13, 5.1.15, 5.1.19~5.1.20, 5.1.23~5.1.27, 5.2.1, 5.2.13~ 5.2.17, 5.3.1, 5.3.5~5.3.7, 5.3.11~5.3.12, 5.3.16~5.3.18, 5.3.22, 6.1~6.2, 6.4~6.9, 7.9~ (7.15, 7.43~7.46, 8.1~8.3)
- d) Some terms and definitions, such as "corrosion," have been changed (see 3.1, 3.5, 3.6, 3.16, 3.17, 3.19, 3.20, 3.22, 4.5, 4.11, 4.12). 4.13, 4.14, 4.17, 5.1.8, 5.1.9, 5.1.10, 5.1.11, 5.1.14, 5.1.18, 5.1.22, 5.1.28, 5.1.30, 5.1.31 5.1.33, 5.1.34, 5.1.35, 5.1.36, 5.2.3, 5.2.4, 5.2.5, 5.2.6, 5.2.7, 5.2.9, 5.2.10, 5.3, 5.3.2, 5.3.3 5.3.4, 5.3.10, 5.3.13, 5.3.14, 5.3.15, 5.3.19, 5.3.21, 5.3.23, 5.3.24, 5.3.25, 6.3, 6.12, 7.1, 7.7 7.8, 7.17, 7.21, 7.23, 7.24, 7.25, 7.29, 7.30, 7.34, 7.36, 7.48, 7.50, 7.51, 7.53, 7.54, 7.55, 8.7,

8.8 Versions 8.9, 8.10, and 2016 versions 2.1, 2.4, 2.5, 2.7, 2.8, 2.10, 2.11, 2.13, 3.5, 3.11, 3.12, 3.13, 3.14, and 3.17. 4.1.7, 4.1.8, 4.1.9, 4.1.10, 4.1.11, 4.1.14, 4.1.25, 4.1.27, 4.1.29, 4.1.30, 4.1.32, 4.1.33, 4.1.34 4.1.35, 4.2.2, 4.2.3, 4.2.4, 4.2.5, 4.2.6, 4.2.8, 4.2.9, 4.3, 4.3.1, 4.3.2, 4.3.3, 4.3.6, 4.3.7, 4.3.8 4.3.9, 4.3.10, 4.3.12, 4.3.13, 4.3.14, 4.3.15, 5.1, 5.4, 6.1.1, 6.1.7, 6.1.8, 6.2.2, 6.2.6, 6.2.8 6.2.9, 6.2.10, 6.3.2, 6.3.3, 6.3.7, 6.3.9, 6.4.1, 6.4.3, 6.4.4, 6.4.6, 6.4.7, 6.4.8, 7.4, 7.6, 7.7, 7.8);

e) Added terms and definitions related to "electrochemical protection management" (see Chapter 9). Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed by the China Petroleum and Chemical Industry Federation. This document is under the jurisdiction of the National Technical Committee on Corrosion Control Standardization (SAC/TC381). This document was drafted by: China Nuclear Power Operation Management Co., Ltd., Xiamen Branch of Henan Guangyu Construction Group Co., Ltd., and Yangjiang Nuclear Power Plant. Electric Co., Ltd., Xiamen Yiliang Technology Co., Ltd., Beijing Dingxin New Technology Co., Ltd., Suzhou Thermal Power Research Institute Co., Ltd., Zhejiang Yuxi Corrosion Control Co., Ltd., Shanghai Yunshen Shipbuilding Engineering Co., Ltd., Beijing Gas Group Co., Ltd., Changyuan Changtong New Materials Co., Ltd., Shenzhen Guoneng Chentai Technology Co., Ltd., Shenzhen Energy Marine Energy (Shanwei) Co., Ltd., Sichuan University of Science and Engineering, Feixian County Fu Ruicheng Anticorrosion Technology Co., Ltd., Hunan Anguang Inspection and Testing Co., Ltd., China Railway 22nd Bureau Group Electrification Engineering Co., Ltd., Beijing Bi Haiyunzhi New Materials Technology Co., Ltd., China Corrosion International Corrosion Control Engineering Technology Research Institute (Beijing) Co., Ltd., China Corrosion Control Technology association. The main drafters of this document are. Wu Fangyun, Chen Jing, Zhang Wei, Dong Hongquan, Gu Zhijun, Zhao Yuechun, Li Chengtao, Ou Shuhui, Xu Lei, and Zhao Wanxiang. Chen Jun, Fei Zhisong, Huang Congjie, Wu Wenhua, Bie Bo, Li Yan, Liu Hongqun, Gao Jiawei, Feng Zhiyong, Wang Shuiyong, Li Chijia, Huang Bin, Zeng Xianguang, Guo Shikui Hu Libiao, Liu Min, Sun Xiaojing, Qin Lishuai, Wang Guiming, Lu Yun, Chen Zhiyong, Di Taishen, Fu Guoqing, Li Haiyang, He Linxin, Xing Jun, Liu Xianfa Liu Xuan. This document was first published in 2016, and this is its first revision. Corrosion control electrochemical protection terminology

1 Scope

GB/T 33373-2025 is the Chinese national standard covering the vocabulary of cathodic and anodic protection - the potentials and the reference electrodes they are measured against, the IR drop and the instant-off reading, the anodes, the current density and the interference, defined once for the whole family of standards. At 21,000 words. Issued on 31 October 2025, it has been in force since 1 May 2026, replacing GB/T 33373-2016.

This document defines the corrosion basis, electrochemical basis, cathodic protection, anodic protection, and stray current interference in corrosion control electrochemical protection. Terms and definitions related to exclusion, detection and monitoring, and electrochemical protection management. This document applies to research, teaching, design, production, manufacturing, installation, construction, testing, commissioning, and operation related to corrosion control and electrochemical protection. Maintenance, evaluation, and other activities.

2 Normative references

This document has no normative references.

3 Corrosion Basics

3.1 corrosion Damage or deterioration of materials caused by environmental factors.

Note. Environmental effects include physical, chemical, and electrochemical effects.

[Source: GB/T 41323-2022, 3.1.1]

3.2 corrosion source The collective term for all factors that cause or lead to corrosion.

[Source: GB/T 33314-2023, 3.2]

3.3 The general term for all media that directly participate in the corrosion reaction.

Note. The medium includes hydrogen ions in the acid, oxygen in the water, ferric ions, etc.

[Source: GB/T 41323-2022, 3.1.3]

3.4 The general term for all operating conditions that affect corrosion reactions. [Source:

GB/T 41323-2022, 3.1.4]

3.5 corrosion rate The corrosion effect of metals per unit time.

Note. The method of expressing corrosion rate depends on the technical system and the type of corrosion effect. For example, it is usually expressed as the increase in corrosion depth per unit time or per unit area. The corrosion effect is expressed as the mass of metal transformed into corrosion products per unit area per unit time. The corrosion effect varies over time and is not necessarily the same at all points on the surface. Therefore, corrosion rate reports typically include the type, temporal relationship, and location of the corrosion effect. [Source: GB/T 10123-2022, 3.12]